

CLAIMS

We claim:

1. A method comprising applying aggregates containing ground non-paper material to soil.
2. A method as in claim 1 wherein the non-paper material comprises a waste material.
3. A method as in claim 2 wherein the waste material is selected from the group consisting of wood, wood chips, lumber, sawdust, brush, branches, grass clippings, leaves, yard wastes, straw, stalks, gin trash, bagasse, grain hulls, peels, sorghum, sugar cane, animal byproducts, and organic sludge.
4. A method as in claim 2 where the aggregates further comprise a growth promoter in the range of from about 0.1 to about 20% by weight.
5. A method as in claim 2 wherein the aggregates further comprise a growth promoter in the range of from about 0.5 to about 20 % by weight.
6. A method as in claim 2 wherein the waste material is selected from the group consisting of sheetrock, gypsum, roofing materials, fiberglass, foam board, plastic, polystyrene, rubber and sludge.
7. A method as in claim 2 wherein the aggregates have a volume in the range of from about 0.01 cc to about 150 cc.
8. A method as in claim 2 wherein the aggregates are applied in an amount of between about 6000 kg/ha to about 20,000 kg/ha.
9. A method as in claim 2 wherein the aggregates are applied to soil in an amount sufficient to provide ground cover in the range of 20% to 40%.

10. A method as in claim 2 wherein the aggregates further comprise ground paper.
11. A method as in claim 2 further comprising:
forming a bed of said aggregates; and
cultivating plants in said bed.
12. A method comprising applying aggregates to soil, wherein said aggregates comprise a ground waste material selected from the group consisting of wood, wood chips, lumber, sawdust, brush, branches, grass clippings, leaves, yard wastes, straw, stalks, gin trash, bagasse, grain hulls, peels, sorghum, sugar cane, animal byproducts, clothing, organic sludge
5 and a mixture of any two or more thereof.
13. A method as in claim 12 wherein the aggregates comprise pellets or briquettes.
14. A method as in claim 12 wherein the aggregates comprise crumbled aggregate formed from larger aggregates.
15. A method as in claim 12 wherein the aggregates are applied in an amount of from about 6,000 kg/ha to about 20,000 kg/ha.
16. A method as in claim 12 wherein a majority of the aggregates have a volume in the range of from about 0.1 cc to about 800 cc.
17. A method as in claim 12 wherein a majority of the aggregates have a volume in the range of from about 0.5 cc to about 150 cc.
18. A method as in claim 12 further comprising:
forming a bed of said aggregates; and
cultivating plants in said bed.

5

19. An aggregate containing ground up waste material selected from the group consisting of wood, wood chips, lumber, sawdust, brush, branches, grass clippings, leaves, yard wastes, straw, stalks, gin trash, bagasse, grain hulls, peels, animal byproducts, organic sludge, sheetrock, gypsum, roofing materials, fiberglass, foam board, plastic, polystyrene, rubber, and inorganic sludge.
20. An aggregate as in claim 19 wherein the waste material is selected from the group consisting of wood, wood chips, lumber, sawdust, brush, branches, grass clippings, leaves, yard wastes, straw, stalks, gin trash, bagasse, grain hulls, peels, animal byproducts, and organic sludge.
21. An aggregate as in claim 19 wherein the waste material is selected from the group consisting of sheetrock, gypsum, roofing materials, fiberglass, foam board, plastic, polystyrene, rubber and inorganic sludge.
22. An aggregate as in claim 19 which is further characterized by a nitrogen content in the range of from about 1% to about 10% based on elemental weight.
23. An aggregate as in claim 19 which is further characterized by a content of ground up paper in the range of from about 1% to about 99% by weight.
24. An aggregate as in claim 19 which is further characterized as containing a plant growth promoter including a source of assimilable nitrogen sufficient to provide a C:N atomic ratio between nitrogen from the nitrogen source and biodegradable carbon between about 20:1 to about 60:1.
25. An aggregate as in claim 22 wherein the nitrogen source is selected from the group consisting of ammonium nitrate, ammonium sulfate and urea.

26. An aggregate as in claim 22 wherein the nitrogen source is selected from the group consisting of poultry litter, cattle manure, swine manure, horse manure and sheep manure.
27. An aggregate as in claim 19 further characterized as a pellet or briquette.
28. An aggregate as in claim 19 further characterized as a crumbled aggregate.
29. An aggregate as in claim 19 further characterized as a crumbled aggregate from pellets or briquettes.
30. A growth medium for plants comprising a bed of aggregates containing ground up organic matter selected from the group consisting of wood, wood chips, lumber, sawdust, brush, branches, grass clippings, leaves, yard wastes, straw, stalks, gin trash, bagasse, grain hulls, peels, sorghum, sugar cane and animal byproducts said aggregates being characterized by the presence of a source of assimilable nitrogen sufficient to provide a C:N atomic ratio between biodegradable carbon and nitrogen from the nitrogen source of between about 10:1 to about 60:1.
31. A growth medium as in claim 30 wherein the aggregates are further characterized as containing ground up paper in an amount in the range of from about 1% to about 99% based on weight.
32. A growth medium as in claim 30 wherein the nitrogen source is selected from the group consisting of ammonium nitrate, ammonium sulfate and urea.
33. A growth medium as in claim 30 wherein the nitrogen source is selected from the group consisting of poultry litter, cattle manure, swine manure, horse manure and sheep manure.